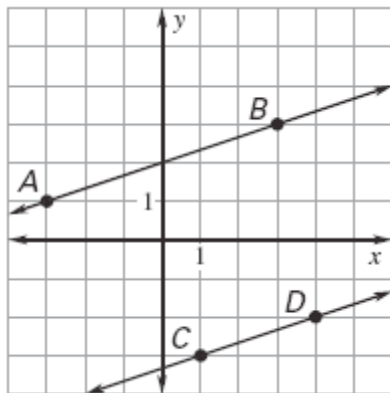


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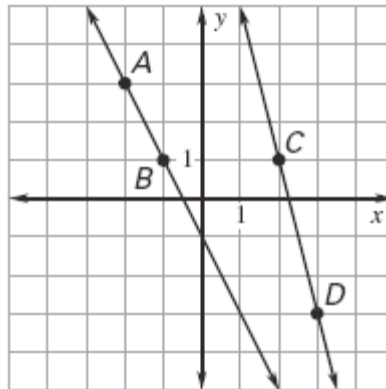
1. What is your name?

Find the slope of each line. Are the lines parallel?

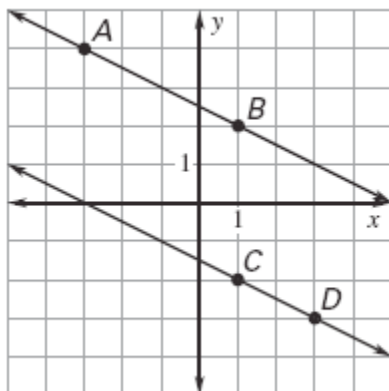
2.



3.



4.



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Write an equation of the line.

5. Slope = $\frac{2}{5}$

y-intercept = -2

6. Parallel to $y = 4x - 4$

y-intercept = $-\frac{3}{5}$

7. Parallel to $y = 8$

y-intercept = 0

Write an equation of the line that passes through the given point P and has the given slope.

8. P(0, 2); slope = 5

9. Parallel to $y = 4x - 4$; y-intercept = $-\frac{3}{5}$

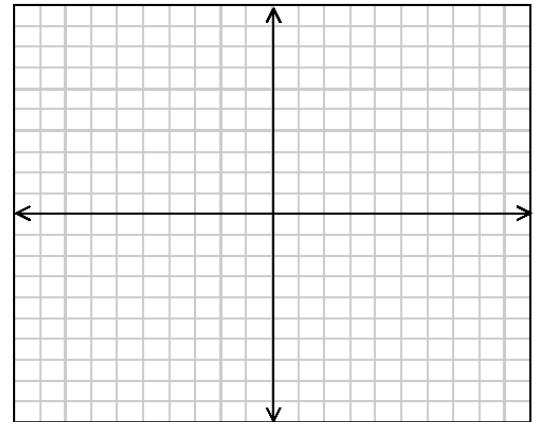
10. P(-3, -3); slope = -3

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A parallelogram is a four-sided figure whose opposite sides are parallel. Given $A(2, 3)$, $B(1, -6)$, and $C(-2, 5)$.

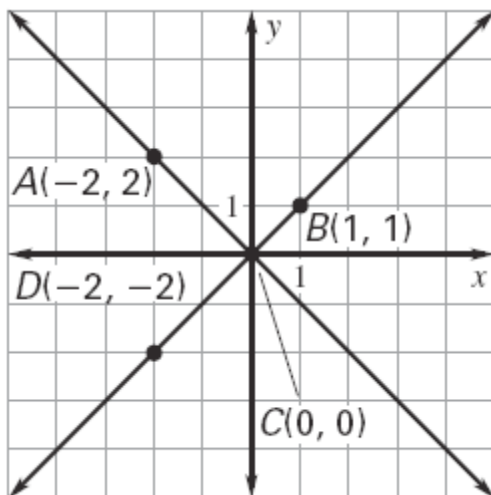
11. Plot and label the three points.
12. Determine the coordinates of point D so that the points are the vertices of a parallelogram. Hint: There is more than one location.



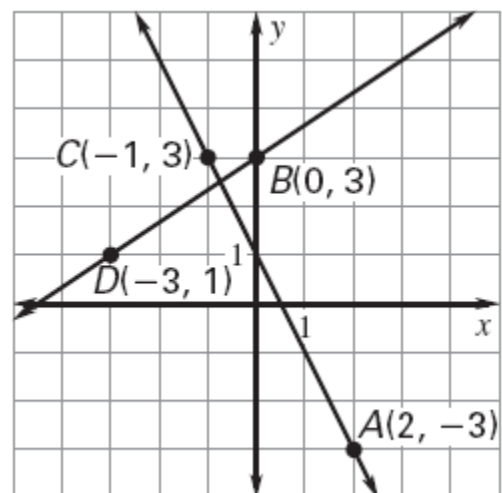
13. If one pair of opposite sides of a parallelogram have positive slopes, will the other pair of sides have negative slopes? Explain.

Find the slope of \overline{AC} & \overline{BD} . Decide whether $\overline{AC} \perp \overline{BD}$.

14.



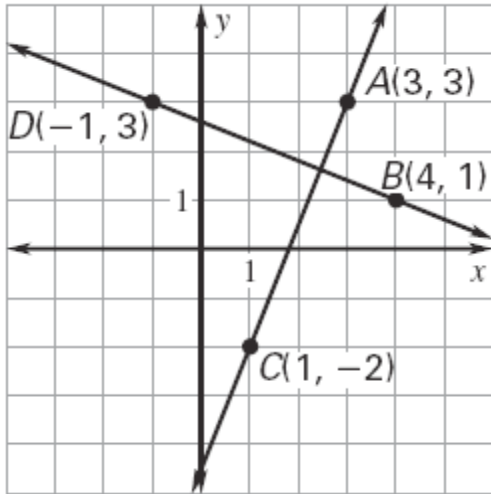
15.



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16. Find the slope of \overline{AC} & \overline{BD} . Decide whether $\overline{AC} \perp \overline{BD}$.



Determine if the intersection of \overline{AB} & \overline{CD} forms a right angle. Show some work/Explain your reasoning.

17. A(-7, 0), B(-2, -1), C(-3, 6), & D(-4, -3).

18. A(5, 8), B(1, 6), C(1, -3), & D(-3, 5)

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19. $(-4, 4)$, $B(4, 3)$, $C(-2, -4)$, & $D(-1, 4)$

20. $A(1, 2)$, $B(-2, -6)$, $C(-1, 5)$, & $D(5, 2)$

Line j is perpendicular to the line with the given equation and line j passes through P. Write an equation of line j.

21. $y = \frac{1}{6}x + 5$, $P(-3, 1)$

22. $y = 0.1x + 7$, $P(1, 2)$

23. $y = -\frac{5}{2}x + 1$, $P(-5, 6)$

24. $y = \frac{2}{3}x + 4$; $P(6, -2)$

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Decide whether the lines with the given equations are parallel, perpendicular, or neither.

25. $2x - 4y = 3$

26. $2x - 5y = 8$

27. $y = \frac{5}{6}x + 8$
 $y = -\frac{6}{5}x - 4$

$4x - 8y = 7$

$5x - 2y = 2$

28. $x - 2y = 12$
 $3x - 6y = 10$

Review.

Use the diagram to complete the statement.

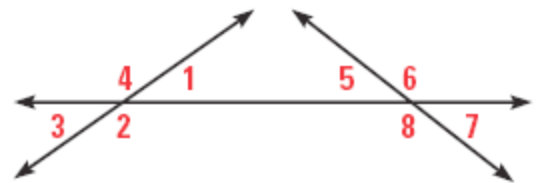
(Chapter 2 Section 6)

29. If $m\angle 5 = 38^\circ$, then find $m\angle 8$.

30. If $m\angle 3 = 36^\circ$, then find $m\angle 4$.

31. If $\angle 8 \cong \angle 4$ & $m\angle 2 = 145^\circ$, find $m\angle 7$.

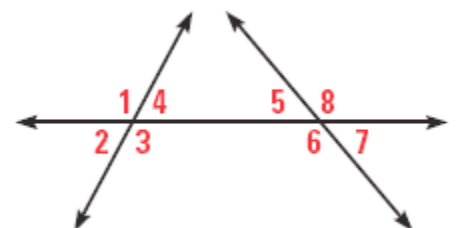
32. If $m\angle 1 = 38^\circ$ & $\angle 3 \cong \angle 5$, find $m\angle 6$.



Use the diagram to complete the statement. (Chapter 3

Section 1)

33. What makes a pair of same-side interior angles with $\angle 3$?



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34. What makes a pair of an alternate exterior angle with $\angle 1$?

35. What makes a pair or alternate interior angles with $\angle 4$?

36. What makes a pair of corresponding angles with $\angle 1$?

37. Describe the 3 types of proofs that you have learned so far? (Chapter 3 Section 2)

